

IN THE CLAIMS:

Please find below a listing of all pending claims. The statuses of the claims are set forth in parentheses. For those currently amended claims, underlined emphasis indicates insertions and ~~striketrough~~ emphasis (and/or double brackets) indicates deletions.

1-9. (canceled)

10. (new) An access control system comprising:

a first information processing apparatus connected to a first storing unit;

and

a second information processing apparatus connected to the first storing unit or a second storing unit, wherein

the first information processing apparatus includes:

an access control unit that allocates an access request to either one of a first access not passing through the second information processing apparatus to the first storing unit and a second access passing through the second information processing apparatus to the first storing unit or the second storing unit;

a first cache unit that temporarily stores the access request allocated to the second access; and

a communication control unit that controls communication with the second information processing apparatus to transmit the access request stored in the first cache unit sequentially to the second information processing apparatus, and

the second information processing apparatus includes:

a second cache unit that temporarily stores the access request transmitted by the communication control unit; and

a control unit that controls access to the first storing unit or the

second storing unit according to the access request stored in the second cache unit in parallel with receiving a new access request from the communication control unit.

11. (new) The access control system according to claim 10, wherein the access control unit allocates the access request to the second access, when the second information processing apparatus is in a normal power mode.

12. (new) The access control system according to claim 10, wherein the access control unit allocates the access request to the second access, when an idle capacity of the first storing unit is less than a threshold value.

13. (new) The access control system according to claim 10, further comprising:

a switching unit that is provided between the first storing unit and both the first information processing apparatus and the second information processing apparatus, and connects the first storing unit and either one of the first and second information processing apparatus, wherein

the access control unit allocates the access request to the second access, when the first storing unit is connected to the second information processing apparatus by the switching unit.

14. (new) A gateway card that is connected to an information processor and that allows transfer of data between different networks, comprising:

a switching unit that switches a connection between a storing unit and either one of the gateway card and the information processor;

an access control unit that allocates an access request to either one of a first access not passing through the information processor to the storing unit and a second access passing through the information processor to the storing unit based on the connection switched by the switching unit;

a cache unit that temporarily stores the access request allocated to the second access; and

a communication control unit that controls communication with the information processor to transmit the access request stored in the cache unit sequentially to the information processor.

15. (new) A computer-readable storage medium that stores a computer program executed on an access control system having a first information processing apparatus connected to a first storing unit and a second information processing apparatus connected to the first storing unit or a second storing unit, wherein

the execution of the computer program making the first information processing apparatus perform:

allocating an access request to either one of a first access not passing through the second information apparatus to the first storing unit and a second access passing through the second information processing apparatus to the first storing unit or the second storing unit;

temporarily storing the access request allocated to the second access in a first cache memory; and

controlling communication with the second information processing apparatus to transmit the access request stored in the first cache memory sequentially to the second information processing apparatus, and

the execution of the computer program making the second information processing apparatus perform:

temporarily storing the access request transmitted from the first information processing apparatus in a second cache memory; and

controlling access to the first storing unit or the second storing unit according to the access request stored in the second cache memory in parallel with receiving a new access request from the first information processing apparatus.

16. (new) An access control method used in an access control system having a first information processing apparatus connected to a first storing unit and a second information processing apparatus connected to the first storing unit or a second storing unit, the information processing method comprising steps executed by the first information processing apparatus of:

allocating an access request to either one of a first access not passing through the second information processing apparatus to the first storing unit and a second access passing through the second information processing apparatus to the first storing unit or the second storing unit;

temporarily storing the access request allocated to the second access in a first cache memory; and

controlling communication with the second information processing apparatus to transmit the access request stored in the first cache memory sequentially to the second information processing apparatus, and

steps executed by the second information processing apparatus of:

temporarily storing the access request transmitted from the first information processing apparatus in a second cache memory; and

controlling access to the first storing unit or the second storing unit according to the access request stored in the second cache memory in parallel with receiving new access request from the first information processing apparatus.